

EXHIBIT 3

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION**

CADDO SYSTEMS, INC. AND 511
TECHNOLOGIES, INC.,

Plaintiffs

v.

NXP SEMICONDUCTORS N.V., NXP
B.V., NXP USA, INC.,

Defendants.

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NO. 6:20-cv-244-ADA

JURY TRIAL DEMANDED

CADDO SYSTEMS, INC. AND 511
TECHNOLOGIES, INC.,

Plaintiffs

v.

MICROCHIP TECHNOLOGY
INCORPORATED,

Defendant.

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NO. 6:20-cv-245-ADA

JURY TRIAL DEMANDED

DEFENDANTS' FINAL INVALIDITY CONTENTIONS

Pursuant to the Stipulation for First Amended Agreed Scheduling Order submitted on December 29, 2020 (-244 Case Dkt. No. 29, -245 Case Dkt. No. 21) and the Stipulation for Second Amended Agreed Scheduling Order submitted on February 23, 2021 (-244 Case Dkt. No. 33, -245 Case Dkt. No. 24), Defendants NXP Semiconductors N.V., NXP B.V., NXP USA, Inc. (collectively “NXP”) and Microchip Technology Incorporated (“Microchip”) (collectively “Defendants”) hereby serves their Final Invalidity Contentions (the “Invalidity Contentions”) for U.S. Patent Nos. 7,191,411; 7,216,301; 7,640,517; 7,725,836; 8,352,880; and 10,037,127 (collectively, the “Asserted Patents”).

I. INTRODUCTORY STATEMENT

Plaintiffs Caddo Systems, Inc. and 511 Technologies, Inc.’s (collectively, “Plaintiffs” or “Caddo”) Preliminary Infringement Contentions (the “Infringement Contentions”), served on September 17, 2020, are vague and incomplete, and do not provide the specificity necessary to allow Defendants to adequately respond. For example, the Court’s Order Governing Proceeding for Patent Cases required Plaintiff to “serve[] preliminary infringement contentions in the form of a chart setting forth where in the accused product(s) each element of the asserted claim(s) are found.” Caddo has failed to do so. Caddo’s Infringement Contentions provide inadequate explanation for its infringement allegations and fail to fairly apprise Defendants of Caddo’s infringement theories or what is alleged to infringe. For example, Caddo’s Infringement Contentions for at least the following elements are deficient:

- “wherein pre-selecting a given active link triggers the display of *sibling menu items* on the level associated with said given active link” (’411 Patent, Claim 1; *see also* ’517 Patent, Claim 1; ’836 Patent, Claims 1 and 8; ’880 Patent, Claim 10; ’127 Patent, Claims 1 and 14) / “each said active link enabling the user to directly browse all items on any given level of the hierarchical information structure” (’301 Patent, Claims 1, 9; *see also* ’836 Patent, Claim 1; ’127 Patent, Claims 1 and 14);
- “*dynamically constructing* an Active Path as a sequence of active links” (’301 Patent, Claims 1, 9; ’836 Patent, Claims 2 and 8; ’880 Patent, Claims 1 and 10; ’127 Patent, Claims 1, 14; *see also* ’411 Patent, Claim 1 (“automatically constructing ...”));
- “*dynamically constructing* the Active Path when a pre-defined short-cut is executed” (’301 Patent, Claim 2; ’836 Patent, Claim 2; *see also* ’411 Patent, Claim 2, ’517 Patent, Claim 2) / “selection of a predefined shortcut dynamically constructs an active path” (’880 Patent, Claims 9 and 18; ’127 Patent, Claims 9 and 22);
- “one said active link *corresponding to each* of the items selected ...” (’411 Patent, Claim 1; ’301 Patent, Claims 1 and 9; ’517 Patent, Claim 1; ’836 Patent, Claim 1; ’839 Patent, Claim 8); and
- “wherein *pre-selecting a given active link* triggers the display of sibling menu items on the level associated with said given active link without disturbing the displayed Active Path” (’411 Patent, Claim 1) / “browsing the hierarchical information structure by *rolling over said graphic element* using a pointing device, wherein browsing results in the display of sibling items or hierarchically subordinate items” (’301 Patent, Claim 9; *see*

also id., Claim 3; '517 Patent, Claim 1; '836 Patent, Claim 3; '880 Patent, Claims 3 and 12; '127 Patent, Claims 3 and 16)

Taking the “display of sibling menu items ...” limitation as an example, the materials cited by Caddo do not disclose how NXP and Microchip’s websites plausibly display *sibling* menu items. *See* Infringement Contentions Ex. A at 6-7. Taking the “dynamically constructing an Active Path as a sequence of active links” limitation as another example, the materials cited by Caddo do not disclose how the alleged Active Path is constructed “dynamically.” *See* Infringement Contentions Ex. B at 14. Similarly, Caddo’s Infringement Contentions do not explain how the alleged Active Path is constructed “dynamically” when a pre-defined short-cut is executed. *Id.* at 7. In at least each of the instances identified above, Caddo fails to “set[] forth where in the accused product(s) each element of the asserted claim(s) are found.” Caddo’s failure to identify what it contends to be infringing in its Infringement Contentions has prejudiced Defendants’ ability to prepare these Invalidity Contentions.

Defendants understand that Caddo has asserted the following claims which are collectively referred to herein as the “Asserted Claims”:

Patent	NXP	Microchip
7,191,411 (the '411 patent)	1-4	1-4 and 6
7,216,301 (the '301 patent)		1-5 and 9
7,640,517 (the '517 patent)	1-3 and 5-6	1-6
7,725,836 (the '836 patent)		1-5 and 7-8
8,352,880 (the '880 patent)	1, 3-10, 12-20, and 22	1, 3-10, 12-20, and 22
10,037,127 (the '127 patent)	1, 3, 4, 6-11, 13-14, 16, 17, 19-24, and 26	1, 3-11, 13-14, 16-24, and 26

To the extent that these Invalidity Contentions rely on or otherwise embody particular constructions of terms or phrases in the Asserted Claims, Defendants are not proposing any such constructions as proper constructions of those terms or phrases. Various positions put forth in

this document are predicated on the Court's Claim Construction Order issued on April 24, 2021 (-244 Case Dkt. No. 41, -245 Case Dkt. No. 34) and/or on Caddo's incorrect and overly broad interpretation of its patents and claims as evidenced by its Infringement Contentions. Those positions are not intended to and do not necessarily reflect Defendants' interpretation of the true and proper scope of Caddo's claims, and Defendants reserve the right to adopt claim construction positions that differ from or even conflict with various positions put forth in this document. Defendants offer these Invalidity Contentions in response to Caddo's Infringement Contentions, notwithstanding the deficiencies therein, without prejudice to any position Defendants may ultimately take as to any claim construction issues. Thus, Defendants' Invalidity Contentions should not be interpreted as suggesting that Caddo's reading of the Asserted Claims is correct, that any of the Asserted Claims are not indefinite, or as an admission that any of Defendants' products or technology infringe any claim of the Asserted Patents. Defendants specifically deny any such infringement.

These Invalidity Contentions, including the attached exhibits, are subject to modification, amendment, and/or supplementation in the event that Caddo provides any information that it failed to provide in its Infringement Contentions or attempts to cure the deficiencies in its Infringement Contentions, including in response to Plaintiffs' Final Infringement Contentions, any findings as to the priority or invention date of the Asserted Claims, positions that Plaintiffs or their expert witness(es) may take concerning claim construction, infringement, and/or invalidity issues, and/or in light of any additional claim construction rulings the Court may make concerning the Asserted Claims. Further, because discovery is not complete, Defendants reserve the right to revise, amend, and/or supplement the information provided herein, including identifying and relying on additional references, should Defendants' further search and analysis

yield additional information or references, consistent with the applicable rules and the Federal Rules of Civil Procedure.

The Invalidity Contentions herein are based on Defendants' present knowledge, and, pursuant to the Stipulation for First Amended Agreed Scheduling Order submitted on December 29, 2020 (-244 Case Dkt. No. 29, -245 Case Dkt. No. 21), Defendants reserve the right to amend these contentions if it identifies new material despite its reasonable efforts to prepare these contentions. Defendants' investigation regarding invalidity of the Asserted Patents over prior art and regarding other grounds of invalidity, including those based on the public use and on-sale bars under 35 U.S.C. § 102(b), anticipation under 35 U.S.C. § 102, obviousness under 35 U.S.C. § 103, failure to comply with 35 U.S.C. § 112, derivation under 35 U.S.C. § 102(f), and prior invention under 35 U.S.C. § 102(g), is ongoing. There may be products that were known or in public use prior to the filing dates of the applications leading to the Asserted Patents, but Defendants must first obtain additional information regarding these products using available discovery tools.

Moreover, prior art not included in this disclosure, whether known or unknown to Defendants, may become relevant. In particular, Defendants are currently unaware of the extent, if any, to which Plaintiffs will contend that limitations of the Asserted Claims are not disclosed in the prior art identified by Defendant, or will contend that any of the identified references does not qualify as prior art under § 102. The identification of any patents as prior art shall be deemed to include identification of any foreign counterpart patents. To the extent that such issues arise, Defendants reserve the right to identify additional teachings in the same references or in other references that anticipate or would have made the addition of the allegedly missing limitation to the apparatus or method obvious.

II. INVALIDITY OF THE ASSERTED PATENTS

A. Invalidity Based on 35 U.S.C. § 101

Each Asserted Claim is invalid for failing to recite patentable subject matter under 35 U.S.C. § 101.

In *Alice Corp. Pty. v. CLS Bank Int'l*, 134 S. Ct. 2347 (2014), the Supreme Court established a two-part test for determining whether a claim recites patent-eligible subject matter. First, the court must determine whether the claims at issue are directed to any of the following patentable ineligible subject matter: laws of nature, natural phenomena, or abstract ideas. *Id.* at 2355. Second, if the claims are directed to ineligible subject matter, the court must then consider the claim elements—both individually and as an ordered combination—to determine whether they add an “inventive concept.” *Id.* Merely claiming a generic “computer” to implement an abstract idea is not sufficient to transform the computer into a patent-eligible invention. *Id.* at 2357-50.

The Asserted Claims are drawn to an abstract idea. The claims are untethered to any specific implementation or environment because the patent does not materially limit the concepts and components that were commonplace in ordinary graphical user interfaces, software programs, and webpages. *See, e.g.*, ’411 patent at 1:23-24 (referring to navigation systems as “convention[.]”); 1:24-26 (“By far the most popular menu navigation system is the so-called collapsing menu system which, for example, is used by many traditional personal computer applications”); 1:34-36 (“In a collapsing menu system each level in the hierarchy is presented as a level in the pull-down menu.”); 1:48-50 (“The defining characteristic of such a conventional navigation system is that navigation is one-way, and always starts from the root level to an end node.”); 1:65-2:15 (referring to various “conventional path menu systems.”). The numerous

references in the following sections confirm that the concept of navigating a multi-level hierarchical collapsing menu, as well as providing shortcuts to the path navigated to more easily revisit that path, was well-known and conventional in the art long before the applications for the Asserted Patents were filed. This is similar to a hiker who leaves breadcrumbs or markers on a trail to denote the route taken so she can more easily retrace her steps.

Nor do the elements of the claims—whether individually or as a whole—evidence any “inventive concept.” The elements merely describe well-known navigation techniques, such as collapsible menus, graphical user interfaces, and automatically constructing shortcuts reflecting the path navigated implemented using conventional and well-known hardware. *See, e.g.*, ’411 patent at 3:14-21 (“FIG. 3 is a block diagram of a computer 32 on which the software of the present invention operates. In the preferred embodiment, the main logic of the computer 32 is embodied by a general-purpose, programmable microprocessor 34, which in conventional practice will have an on-board memory cache (not shown) and which may be associated with one or more mathematics or other special-purpose coprocessors (not shown).”). Merely claiming a series of generic techniques to implement an abstract idea is not sufficient to transform the claims into a patent-eligible invention.

Defendants’ investigation concerning invalidity of the Asserted Patents under Section 101 is ongoing. For example, no claim terms have been construed, Plaintiffs have not provided adequate infringement contentions, and discovery is ongoing. Defendants thus reserve the right to supplement and/or amend their invalidity contentions with respect to Section 101.

B. Invalidity Based on 35 U.S.C. §§ 102 and 103

The references in Exhibits A and B as well as the system prior art discussed below disclose elements of the Asserted Claims explicitly and/or inherently. These references may also

be relied upon to show the state of the art at the relevant time and/or that elements of the Asserted Claims, or any Asserted Claim as a whole, would have been obvious to a person having ordinary skill in the art at the time of the alleged invention. Obviousness combinations are provided in the alternative to Defendants' anticipation contentions and are not to be construed as suggesting that any reference included in the combinations is not by itself anticipatory.

Defendants are unable to know the extent to which Plaintiff will contend that limitations of the Asserted Claims are not disclosed in the art identified by Defendants as anticipatory. If any such issue arises with respect to any such limitation, Defendants reserve the right to identify other references and combinations that may make obvious the addition of the allegedly missing limitation.

The references discussed in Exhibits A and B as well as the system prior art discussed below are applied to the Asserted Claims. The fact that Defendants' disclosures pertain only to the Asserted Claims should not be construed to suggest that any of the other claims of the Asserted Patents are valid. Should Plaintiffs be permitted to amend their infringement contentions to assert additional or alternative claims, or modify the bases for their contentions, Defendants reserve the right to modify, amend, or supplement these disclosures.

Various references discussed in Exhibits A and B as well as the system prior art discussed below may be of greater or lesser relevance and different combinations of these references may be implicated depending on Plaintiffs' proposed claim constructions. In view of Defendants' uncertainty regarding how Plaintiffs will contend the claims apply, the discussion of the different references in Exhibits A and B and the system prior art discussed below may reflect alternative applications of the prior art against the Asserted Claims. A more detailed discussion

of Defendants' Section 102 and/or 103 defenses will be set forth in Defendants' expert report(s) on invalidity.

Defendants provide pinpoint citations to exemplary portions of the prior art for the purpose of fairly disclosing the manner in which the prior art references meet the claim limitations. Such citations should not be construed to mean that other portions of the prior art references are not relevant to the invalidity of the claims. Defendants specifically reserve the right to rely on the entirety of any or all of the prior art references—whether charted or not charted—as a basis for asserting invalidity of the Asserted Claims and/or as necessary to supplement their invalidity contentions with additional citations and evidence.

1. Admitted Prior Art

The Asserted Patents admit that certain teachings, concepts, and claim elements were known in the prior art. For example, in the Background of the Invention, the specification admits that, “[c]onventionally one of two navigation systems [were] used to navigate through the various levels of a menu tree” and that “the most popular menu navigation system is the so-called collapsing menu system which, for example, is used by many traditional personal computer applications.” ’411 patent at 1:23-27. The Asserted Patents further admit that the pull-down menu illustrated in FIG. 1A and FIG. 1B was “conventional” when the priority patent application was filed. *Id.* at 1:37-53. So, too, for FIG. 2A and FIG. 2B. *Id.* at 1:65-2:2.

The Asserted Patents admit that “conventional operating systems such as Microsoft Windows® provide short-cuts in the form of pre-defined function keys or icons” and that “[s]uch short-cuts enable[d] the user to directly access the desired function.” *Id.* at 1:54-57. The Asserted Patents further admit that in the prior art (*e.g.*, Microsoft Windows) a “system of displaying the contents of each folder is provided to guide the user through the hierarchy.” *Id.* at

2:8-10; *see generally id.* at 2-15. The Asserted Patents also admit that in the prior art “the user is provided with the contents of the present folder and the path leading to the present folder.” *Id.* at 2:11-13. Indeed, the Asserted Patents state that the alleged invention “may be used in conjunction with a conventional navigation system such as the above-described collapsing menu system or path.” *Id.* at 4:5-8; *see also id.* at 4:14-16 (“The Active Path 100 is dynamically assembled and 15 displayed as the user navigates using the conventional menu screens.”); 4:25-27 (“The Active Path 100 is automatically constructed as the user navigates between the various levels 10 of the conventional collapsing menu system.”); 4:38-41; 5:47-52. With respect to FIG. 4, the Asserted Patents admit that “the present invention [] is visually similar to the conventional (DOS) path menu system of FIG. 2.” *Id.* at 3:61-63.

The Asserted Patent also admit that the alleged invention is implemented on conventional hardware. *See, e.g., id.* at 3:14-21 (“FIG. 3 is a block diagram of a computer 32 on which the software of the present invention operates. In the preferred embodiment, the main logic of the computer 32 is embodied by a general-purpose, programmable microprocessor 34, which in conventional practice will have an on-board memory cache (not shown) and which may be associated with one or more mathematics or other special-purpose coprocessors (not shown).”

2. Anticipation by Patents and Printed Publications

Based on Defendants’ understanding of Plaintiffs’ Infringement Contentions, at least one or more Asserted Claims are invalid as anticipated under 35 U.S.C. § 102 in view of the patent and printed publication prior art references listed below as indicated and discussed in Exhibit A, as well as any methods or systems which embody the concepts disclosed in those references.

Exhibit A is a series of charts, numbered A-1 through A-7, that identify specific examples of where each claim limitation is found in a particular reference.¹

Table 1: List of Anticipatory Patents and Printed Publications

Chart	Reference
A-1	“Media Browser: An Example of Metadata-Based Browsing” by Alison Lennon, Daniel Lloyd-Jones, Ernest Wan, Ken Yap, Michael Anderson, and Belinda Yee, Canon Information Systems Research Australia (CISRA) (“Lennon”), published January 2001.
A-2	“CobWeb: Exploring the Need for Style Guidelines to Improve Communication on the World Wide Web,” Alison Joyner (“Joyner”), Honors Thesis, University of Tennessee, Knoxville, published Spring 2000.
A-3	“Seven Steps to Easier Web Navigation,” by Constance Petersen (“Petersen”), published April 2000. Available at http://jepelet.free.fr/studies/MBA/design/s4/lectures/Seven%20Steps%20To%20Easier%20Web%20Navigation.pdf .
A-4	“Site-Seeing: A Visual Approach to Web Usability,” by Luke Wroblewski (“Wroblewski”), published by Hungry Minds in April 2002.
A-5	U.S. Pat. No. 7,277,928 (“Lennon ’928”) was filed on December 21, 2001 and was issued on October 7, 2007. U.S. Pat. Pub. No. US 2002/0107973 (“Lennon ’973”) was filed on Nov. 13, 2001 and was published on Aug. 8, 2002.
A-6	U.S. Pat. No. 8,438,487 (“Lin-Hendel”) was filed on May 23, 2000 and was issued on May 7, 2013.
A-7	U.S. Pat. Pub. No. US 2002/0105537 (“Orbanes 2002”) was filed on Feb. 14, 2001 and was published on Aug. 8, 2002. U.S. Pat. Pub. No. US 2001/0045965 (“Orbanes 2001”) was filed on Feb. 14, 2001 and was published on Nov. 29, 2001.
A-8	U.S. Pat. No. 6,301,583 (“Zellweger”) was filed on May 16, 1998 and issued on Octo. 9, 2001.

Defendants specifically assert the references in the table above as anticipatory references under 35 U.S.C. §§ 102 (a), (b), and/or (e), but also assert that the invention of such systems and/or methods prior to the alleged invention date of the asserted claims may also constitute

¹ NXP does not rely on the references described in Exhibits A-2, A-3, and A-5 for anticipation and/or obviousness.

prior art under 35 U.S.C. § 102(g), which will be confirmed as discovery progresses. In particular, the work by Luke Wroblewski is an invalidating prior invention under § 102(g)(2). Mr. Wroblewski did not abandon, suppress, or conceal his invention as evidenced by the fact that he published the Site-Seeing book about it. Upon information and belief, the manuscript for Chapter 2 of the Site-Seeing reference, which discloses the combination of a dynamic breadcrumb path with dropdown menus, was completed in April of 2002 and is thus prior art.

3. Invalidity by System Art

In addition to the patents and printed publications discussed above, a number of systems constitute prior art that invalidates at least one Asserted Claim of the Asserted Patents under 35 U.S.C. §§ 102 (a), (b), and/or (g). In addition to the systems described in the A-Charts and B-Charts, the system prior art includes, for example, the following websites and operating systems: www.ebay.com; www.tigerdirect.com; MacOS X; www.apple.com; www.lukew.com; www.yahoo.com; www.useit.com; www.egreetings.com; www.epicurious.com; www.google.com; www.amazon.com; www.bluenile.com.

Yahoo!

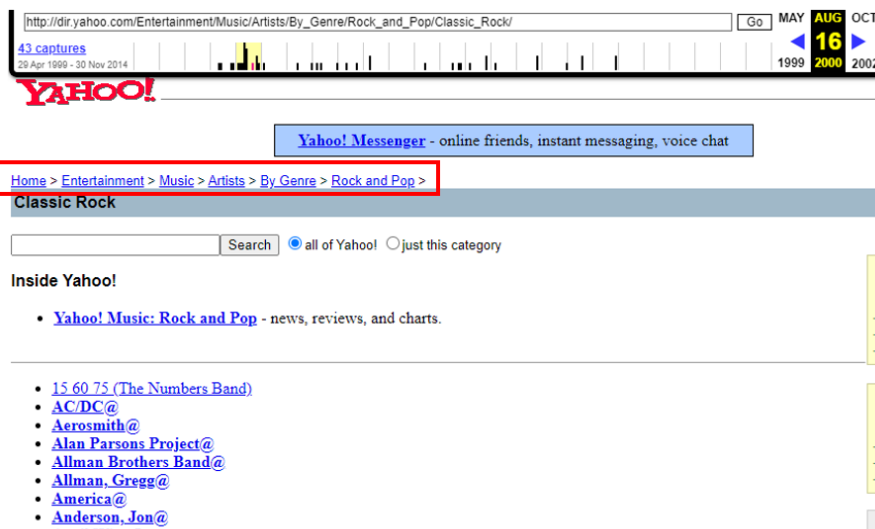
On information and belief, Yahoo! was a widely-used web directory and search engine. Yahoo! Directory was first available to the public in the United States around 1994, more than one year before the alleged priority date of the Asserted Patents and qualifies as prior art under at least 35 U.S.C. § 102(b).

Around the early 2000s, Yahoo! contains a hierarchical directory enable users to browse different categories and find websites and webpages related to a topic they are interested in. Each category, such as “Entertainment,” contains multiple sub-categories.



(<https://web.archive.org/web/20000510085158/http://www.yahoo.com/>)

As the user clicks on the categories and sub-categories, Yahoo! constructs a breadcrumb trail showing the user the path that the user has taken.



(https://web.archive.org/web/20000816170143/http://dir.yahoo.com/Entertainment/Music/Artists/By_Genre/Rock_and_Pop/Classic_Rock/)

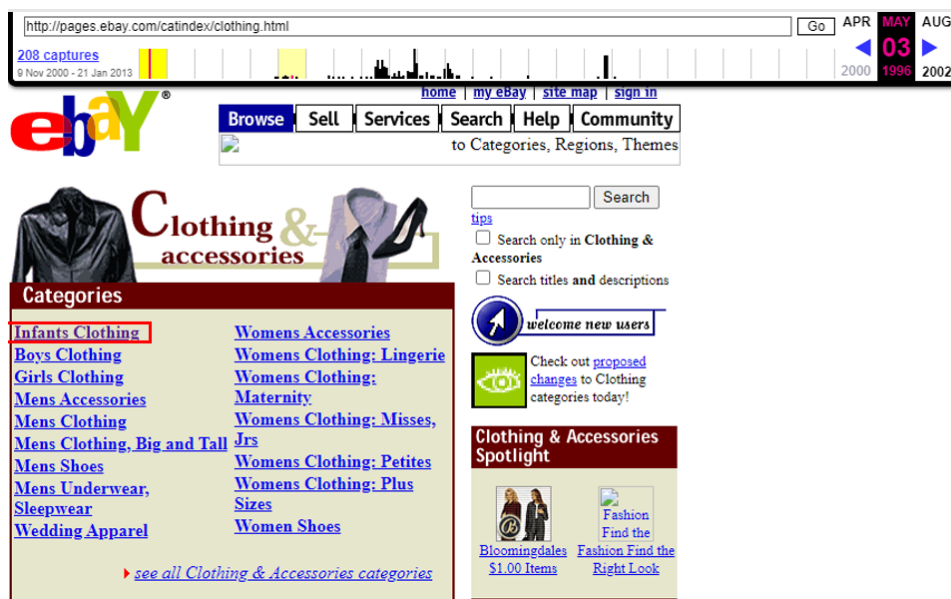
www.ebay.com

On information and belief, www.eBay.com was a website first created around 1995. Circa 2002, eBay had been an e-commerce website facilitating consumer-to-consumer and business-to-consumer sales. The eBay website was accessible to the public in the United States more than one year before the alleged priority date of the Asserted Patents and qualifies as prior art under at least 35 U.S.C. § 102(b).

Around the early 2000s, eBay's website contained a hierarchical information structure to enable users to browse items for sale based on categories and sub-categories. As the customer selects categories that he or she wants to browse, the website automatically constructs a breadcrumb trail, which is an active path with active links indicating the path that the customer takes to get to a particular item or location. For example, on the www.ebay.com homepage, as captured by Wayback Machine on May 20, 2001, a user can click the "Clothing & Accessories" category, and then choose "Infants Clothing":



(<https://web.archive.org/web/20010520020014/http://www.ebay.com/>)



(<https://web.archive.org/web/20010603074025/http://pages.ebay.com/catindex/clothing.html>)

Clicking on “Infant Clothing” will take the customer to a page that contains the active path “Top > Clothing & Accessories > Infants Clothing.” Under the “Infants Clothing” active link it displays the subordinate categories “General,” “3-6 months,” “0-3 months” and “6-12 months.”

http://listings.ebay.com/aw/plistings/list/category3082/index.html Go FEB APR OCT
8 captures 24 Jan 2001 - 24 Apr 2005 2000 2001 2002

home my eBay site map sign in

ebay®

Browse Sell Services Search Help Community
to Categories, Regions, Interests

☒ Search only in Clothing
☐ Search titles and descriptions

► Bid for a good cause! [eBay Charity Fundraising](#).
► Find what interests you most. Browse by [Theme pages!](#)

Top > Clothing & Accessories > Infants Clothing

Current || [New Today](#) || [Ending Today](#) || [Completed](#) || [Going, Going, Gone](#)

[General](#) (4425) [3-6 months](#) (6546) [12-24 months](#) (14098)
[0-3 months](#) (3803) [6-12 months](#) (9094)

Related Topics: [Infants & Toddlers Theme Page](#) | [Gifts for Children](#)

37127 **Infants Clothing** items in All eBay

[All Items](#) [All items including Gallery preview](#) [Gallery Items](#)

Status	Featured Items - Current	Price	Bi
	Best Girl Gift: COMPLETE Preschool Education	\$14.95	

(<https://web.archive.org/web/20010401011958/http://listings.ebay.com/aw/plistings/list/category3082/index.html>)

www.egreetings.com

On information and belief, based on publicly available materials, www.egreetings.com, a website enabling users to download e-greeting cards, was publicly available in the United States at least as early as 1998, making it prior art to the Asserted Patent under at least 35 U.S.C. § 102(b).

Around 2001-early 2002, www.egreetings.com provides a multi-level hierarchical index that allows users to navigate and select a location.



(<https://web.archive.org/web/20011103005346/http://www.egreetings.com/>)

When the user clicks an item in the multi-level hierarchical index, the resulting page includes a breadcrumb trail showing the path that leads the user to the particular page. The sidebar on the left also shows the sibling and subordinate items of the selected link.

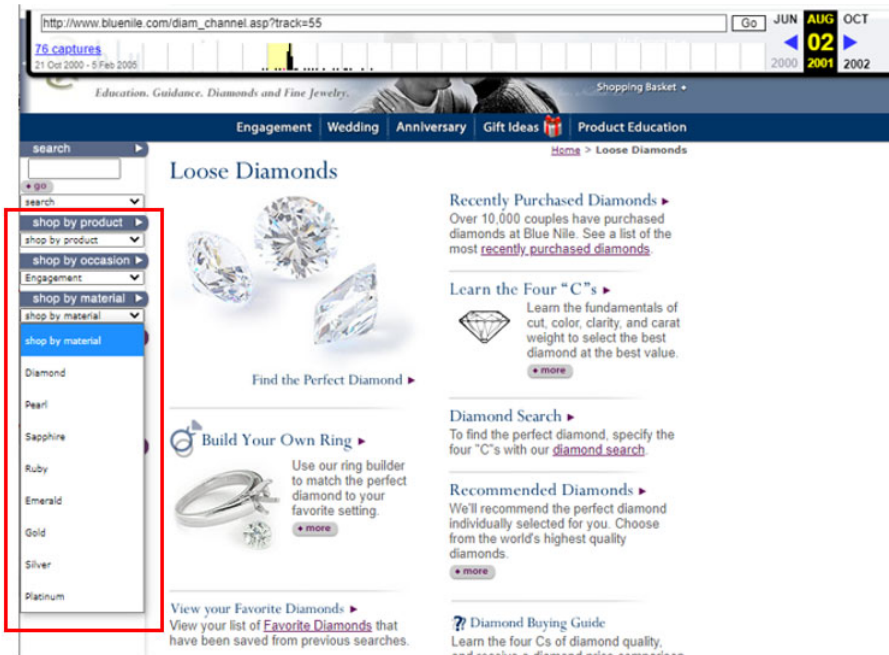


(<https://web.archive.org/web/20011108044253/http://www.egreetings.com/category.pd?L0=61&L1=502&L2=1047&L3=50750&L4=300462&L5=0>)

www.bluenile.com

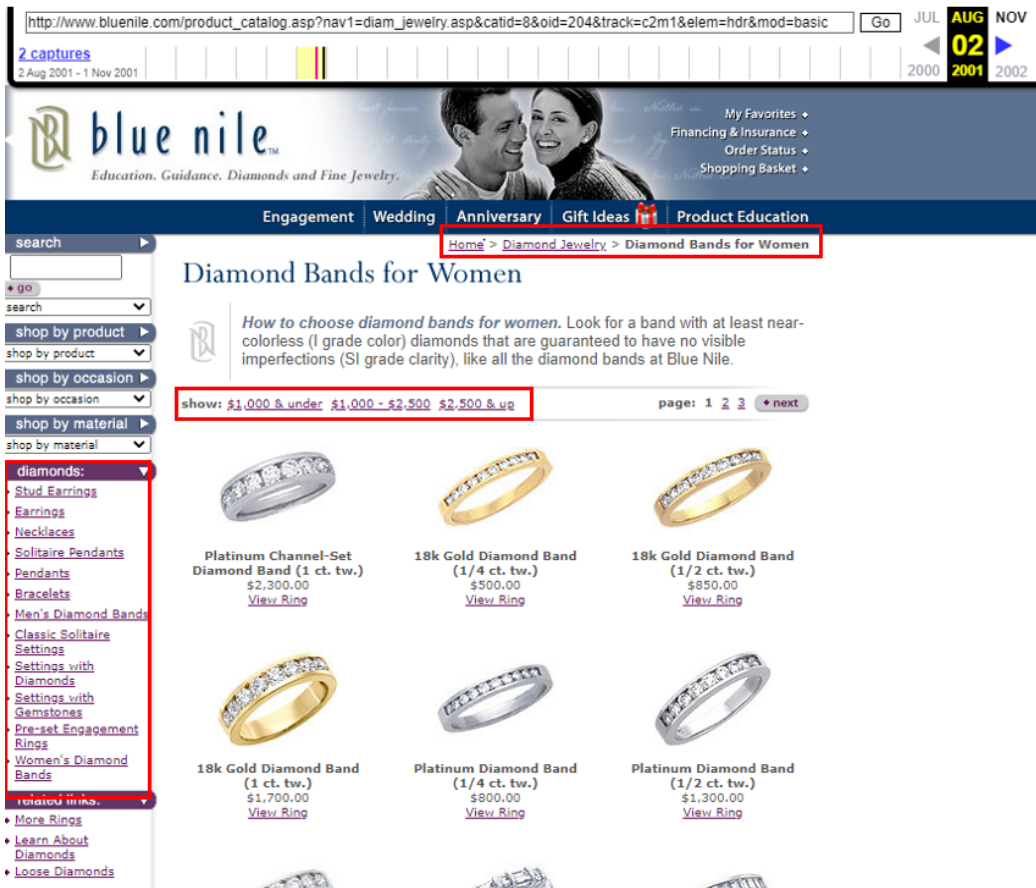
On information and belief, www.bluenile.com is an online jewelry retail website founded in 1999. www.bluenile.com was thus in public use more than one year prior to the alleged priority date of the Asserted Patent and is thus prior art under at least § 102(b).

Around 2001-early 2002, www.bluenile.com contains hierarchical drop-down menus with multiple subordinate items. For example, the website contains categories such as “shop by product,” “shop by occasion,” and “shop by material” categories, each having a drop-down menu with various subordinate items.



(https://web.archive.org/web/20010802044813/http://www.bluenile.com/diam_channel.asp?track=55)

When a user selects an item from the drop down menu, for example, “Diamond” under “shop by material,” and on the next page, selects “diamond bands,” it takes the user to the “diamond bands” page. The page displays an active path, “home > Diamond Jewelry > Diamond Bands for Women. Below the active path, the page also shows the subordinate items under the “Diamond Bands for Women” category, “\$1,000 & under,” “\$1,000 - \$2,500,” “2,500 & up.” The sidebar on the left displays sibling items for the “Diamond Bands for Women” category, i.e., other types of jewelries under the “diamond” category, such as “Stud Earrings,” “Earrings” and “Necklaces.”



(https://web.archive.org/web/20010802103346/http://www.bluenile.com/product_catalog.asp?nav1=diam_jewelry.asp&catid=8&oid=204&track=c2m1&elem=hdr&mod=basic)

www.epicurious.com

On information and belief, www.epicurious.com is a website that focuses on food and cooking-related topics, created by Conde Nast in 1995. www.epicurious.com was thus in public use more than one year prior to the alleged priority date of the Asserted Patent and is thus prior art under at least § 102(b).

www.epicurious.com provides a “browse” function that allows the user to browse different categories and sub-categories of recipes. www.epicurious.com provides a multi-level hierarchical navigation system:

epicurious AS INTO FOOD AS YOU ARE

RECIPE SEARCH

HOME | EAT | DRINK | LEARN | SHOP | RECIPES | RESTAURANTS | BON APPETIT | GOURMET | TV | FORUMS

BROWSE

Here you may browse more than 13,000 recipes — much as you would leaf through your favorite cookbook for inspiration, only better. As you explore, you may filter and narrow the recipes by category. Along the way, add any recipes that you like to your **Recipe Box**. And if you're looking for something to quench your thirst, visit our **Drink File** for hundreds of recipes, with or without the kick.

<p>Main Ingredient</p> <p>Beans, Beef, Berries, Cheese, Chocolate, Citrus, Dairy, Eggs, Fish, Fruits, Garlic, Ginger, Grains, Greens, Herbs, Lamb, Mushrooms, Mustard, Nuts, Olives, Onions, Pasta, Peppers, Pork, Potatoes, Poultry, Rice, Shellfish, Tomatoes, Vegetables</p>	<p>Preparation Method</p> <p>Advance, Bake, Broil, Fry, Grill, Marinade, Microwave, No Cook, Poach, Quick, Roast, Saute, Slow Cook, Steam, Stir Fry</p>
<p>Cuisine</p> <p>African, American, Asian, Caribbean, Eastern European, French, Greek, Indian, Italian, Jewish, Mediterranean, Mexican, Middle Eastern, Scandinavian, Spanish</p>	<p>Season/Occasion</p> <p>Christmas, Easter, Fall, Fourth of July, Hanukkah, New Years, Picnics, Spring, Summer, Superbowl, Thanksgiving, Valentine's Day Winter</p>
<p>Special Considerations: Kid-Friendly, Low Fat, Meatless</p>	<p>Course/Dish</p> <p>Appetizers, Bread, Breakfast, Brunch, Condiments, Cookies, Desserts, Hors d'Oeuvres, Main Dish, Salads, Sandwiches, Sauces, Side Dish, Snacks, Soup, Vegetables</p>

See English et al., “Examining the Usability of Web Site Search,” published in 2002, at Fig. 3.

When the user clicks a link, it takes the users to the corresponding page with a breadcrumb trail.

Underneath the breadcrumb trail, the webpage also provides a list of subordinate (child) menu items so that the user can refine his or her search among a large amount of recipes in a category.

For example, the below web page contains a breadcrumb trail “Browse > Pasta > Saute” and provides subordinate menu items such as “American” and “Greek.”



English at Fig. 5.

Additional Products and Reservation of Rights

Additional products may also constitute invalidating prior art to the Asserted Patents under 35 U.S.C. § 102(a), (b), and/or (g). This includes, for example, products that competed with the aforementioned products in the relevant timeframe.

Defendants' investigation into additional products is ongoing. Discovery in this case is only commencing, and thus Defendants reserve the right to supplement this response to identify these, or other, products as its investigation continues.

4. Obviousness

Based on Defendants' understanding of Plaintiffs' Preliminary Infringement Contentions, Defendants believe that the patent and printed publication references discussed in Exhibit A, as well as the system art prior art references discussed above, each invalidate one or more of the Asserted Claims. However, if the finder of fact determines that some limitation of a given claim was not disclosed by an asserted reference, Defendants contend that the charted reference in combination with the knowledge and skill of a person of ordinary skill in the art at the time of the alleged invention and/or in combination with the disclosures of other prior art would have

rendered all the Asserted Claims obvious. Exemplary reasons why this is the case are explained below.

The prior art references evidence teachings, suggestions, motivations, and/or other reasons to combine them in ways that render obvious all of the Asserted Claims. Certain references within Exhibit B are grouped or categorized according to a particular claim limitation that is disclosed within each reference. References from within a group share similar reasons as to why it would have been well within the level of ordinary skill in the art and obvious to combine a reference with prior art listed in Exhibit A or with other references in Exhibit B. Thus, in addition to the specific combinations of prior art disclosed using claim charts, Defendants reserve the right to rely on any combination of prior art references disclosed in these contentions.

In Exhibit B, different categories of prior art references are presented and a title is provided for each such category. The titles are provided for convenience only and do not constitute a binding characterization of what the references under that title disclose. The Supreme Court has held that the combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results. *KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1739 (2007). When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. *Id.* at 1740. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.

To determine whether there is an apparent reason to combine the known elements as set forth in the Asserted Claims, a court can look to interrelated teachings of multiple references; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art. *Id.* at 1740-41. For example, obviousness can be demonstrated by showing that there existed at the time of invention a known problem for which there was an obvious solution encompassed by the patent's claims. *Id.* at 1743. Any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed. *Id.* Common sense also teaches that familiar items may have obvious uses beyond their primary purposes, and in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle. *Id.*

Thus, the motivation to combine the teachings of the prior art is found in the references disclosed in Exhibits A and B, the system art discussed above, and in: (1) the nature of the problem being solved; (2) the express, implied and inherent teachings of the prior art; (3) the knowledge of persons of ordinary skill in the art; (4) the fact that the prior art is generally directed towards website and software design; and (5) the predictable results obtained in combining the different elements of the prior art.

One of ordinary skill would have therefore been motivated to make the combinations and/or modifications due to the recognition at the time of the alleged invention of a need for, in the Asserted Patents' words, to "provide a more efficient way of navigating hierarchical menu systems." '411 patent at 2:23-24. The '411 Patent states that at the time of the alleged invention, collapsing menu systems had been common in website and computer software design. *Id.* at 1:24-30 ("By far the most popular menu navigation system is the so-called collapsing menu

system which, for example, is used by many traditional computer applications. The distinguishing characteristics of this system are that the navigation always commences from the initial or root level and that the menu collapses or disappears after a selection is made.”).

The '411 Patent also recognizes that at the time of the alleged invention, a POSITA would have recognized the shortcoming of the collapsible hierarchical menu system, as it only provides navigation that is “one-way, and always start from the root level to an end-node.” '411 Patent, 1:50-51. Therefore, “[t]his method of navigation is buried several levels down from the root directory.” *Id.* at 1:51-53.

At the time of the alleged invention, a POSITA would have known that adding a breadcrumb trail was a solution to the problem with the collapsible navigation menu that it is always one-way and always starts from the root level, because an breadcrumb trail serves as a position indicator and the user can backtrack to other levels of the hierarchy without starting from the root level again. For example, Doss, “Designing Effective Web Navigation,” published April 2002, describes that “[a] Breadcrumb Trail ... is an effective way to communicate to the user where they are within a sites hierarchy. Breadcrumbs provide a way for users to orient themselves by acting as a position indicator. They also provide a way for users to backtrack their movement within a site without having to rely on the browser’s ‘Back’ button.” Doss at 16-17. Similarly, Joyner, “CobWeb: Exploring the need for style guidelines to improve communication on the World Wide Web,” published in 2000, explains that “[e]ach page on a site would have a different breadcrumb trail that shows exactly where the user is in the hierarchy o f a site ... The trail allows the user to know where he is and where he can go.” Joyner at 11. As another example, Dovin (U.S. Pat. Pub. 2003/0018665), teaches “a dynamic client-side breadcrumbing method and system for improving navigation of a plurality of web pages within a Website” by

“updating the stored breadcrumbs with the generated breadcrumb to form a breadcrumb navigation trail of breadcrumbs associated with navigation of the web pages at the Website.”

Dovin, Abstract. Dovin discloses a “breadcrumb engine” 112 to accomplish this. *Id.*, Fig. 1; *see also, e.g., id.*, [0005] (“myriad web sites implement breadcrumb navigation within their websites. Breadcrumbs are HyperText Markup Language (i.e., HTML) links that are displayed atop of web pages of a Website that link users to web pages that the user navigated through while at the Website.”); [0008] (“the present invention [] provides a system and method for dynamically generating breadcrumbs for web pages.”); [0014]; [0017]. “DHTML and CSS for the World Wide Web, Second Edition” by Jason Teague is another example of the ubiquity of breadcrumbs. This text provide implementation level examples for coding breadcrumbs. *See, e.g.*, pg. 415 (“Creating a Breadcrumb Trail”) et seq. Exemplary code is shown below:

Chapter 24

To add breadcrumb navigation:

1. `<script src="findDOM.js"></script>`
In any JavaScript function that addresses an object on the screen directly, you need to include the `findDOM` code. To do so, include it in an external text file and then import that file into the page in which it will be used (**Code 24.10**).
2. `var domLevel1 = null;`
For each level you will be drilling down, initialize a variable called `domLevel#`.

Code 24.10 The `showMenu()` function reveals the next menu level when an option is selected.

```

<html>
<head>
  <script src="findDOM.js"></script>
  <script>
var domLevel1 = null;
var domLevel2 = null;
var domLevel3 = null;
function showMenu(level1,level2,level3) {
  if (domLevel1 != null){
    if (level2 == null) { domLevel1.visibility = "hidden"; }
    if (domLevel2 != null){
      if (level3 == null) { domLevel2.visibility = "hidden"; }
      if (domLevel3 != null) { domLevel3.visibility = "hidden"; }
    }
  }
  if (level2 == null) { objectID = 'menu' + level1; domLevel2 = null; }
  else {
    if (level3 == null) { objectID = 'menu' + level1 + '--' + level2; domLevel3 = null; }
    else { objectID = 'menu' + level1 + '--' + level2 + '--' + level3 }
  }
  var domStyle = findDOM(objectID,1);
  domStyle.visibility = "visible";
  if (level2 == null) { domLevel1 = domStyle; }
  else {
    if (level3 == null) { domLevel2 = domStyle; }
    else { domLevel3 = domStyle; }
  }
}
  </script>

```

CREATING A BREADCRUMB MENU

Therefore, a POSITA would have been motivated to combine references disclosing breadcrumb trails with references disclosing a multi-level hierarchical menu to make the multi-level hierarchical menu more effective and user-friendly.

Furthermore, at the time of the alleged invention, a POSITA would have been motivated to combine references disclosing breadcrumb trails with references disclosing lists of items on

the sibling or subordinate levels, so that when the user pre-selects or selects an active link, the list of sibling items or subordinate items would display. As Luke Wroblewski explained in April 2002 in the book “Site-Seeing: A Visual Approach to Web Usability,” breadcrumb trails have the shortcoming that “they provide little understanding of the scope of the entire site and offer no navigation choices beyond backtracking and returning home.” Wroblewski at 58. Wroblewski proposed a design that “breadcrumbs are combined with drop-down menus to not only provide users with an understanding of their current position, but also an awareness of all the possible paths they didn’t take.” *Id.* Therefore, a POSITA would have been motivated to add lists of sibling or subordinate items to breadcrumb trails so that the user can use breadcrumb trails to go to other parts of a website beyond backtracking to the previous levels.

Additionally, some of the prior art references arise from common assignees or share one or more of the same authors or inventors. For example, Alison Lennon is the inventor of U.S. Pat. No. 7,277,928 (“Lennon ’928”), an inventor on U.S. Pat. Pub. No. US 2002/0107973 (“Lennon ’973”) which was filed on Nov. 13, 2001 and was published on Aug. 8, 2002, as well as an author of “Media Browser: An Example of Metadata-Based Browsing.” The common subject matter, ownership, and/or inventors/authors evidence a motivation to combine these (and other) references.

For at least the reasons described above and below in the examples provided, as well as in the attached claim charts, it would have been obvious to one of ordinary skill in the art to combine any of a number of prior art references, including any combination of those identified in Exhibits A and B and the system art prior art references discussed above to meet the limitations of the Asserted Claims.

Furthermore, as discussed in Section II.B.1 above, the Asserted Patents admit that many aspects of the purported invention were well-known at the time of the alleged invention, including collapsible menu trees for navigating folders or applications, standard operating systems like Microsoft Windows, hierarchical information organization schemes, and shortcuts. Embodying these familiar concepts in conventional computers would yield predictable results, and accordingly the Asserted Claims are obvious under *KSR*.

As set forth throughout Defendants' Invalidity Contentions and accompanying claim charts, Defendants contends that all of the Asserted Claims are obvious, as well as each individual claim element. Exhibit B provides charts B-1 through B-4 which set forth additional evidence of obviousness for certain claim elements. Based on Defendants' understanding of Plaintiffs' Preliminary Infringement Contentions, each list in Exhibit B identifies specific pinpoint citations exemplifying where the particular limitation can be found in the prior art references within each list. For the reasons explained in Exhibit B, a person of ordinary skill in the art would have been motivated to combine the references in each chart in Exhibit B with any of the primary references listed in Exhibit A with respect to the limitation each chart addresses. The absence of any reference charted in Exhibit A from one or more charts of Exhibit B is not an admission that such reference does not disclose any claim limitation.

Table 2: Additional Disclosure and Evidence of Obviousness

Chart	Description
B-1	displaying sibling menu items
B-2	pre-selecting a menu / rolling over a link
B-3	active link truncation
B-4	pre-defined shortcuts

5. Additional Background References

In addition to the anticipatory and obviousness references identified above, Defendants may also rely on the references in Table 3 below to establish the state of the art and the knowledge of a person of ordinary skill in the art at the time of the alleged inventions of the asserted claims. The basic concepts and components in the Asserted Claims were all well-known to persons of ordinary skill in the art prior to the alleged priority date of the Asserted Patent as reflected in the references lists in Table 3.

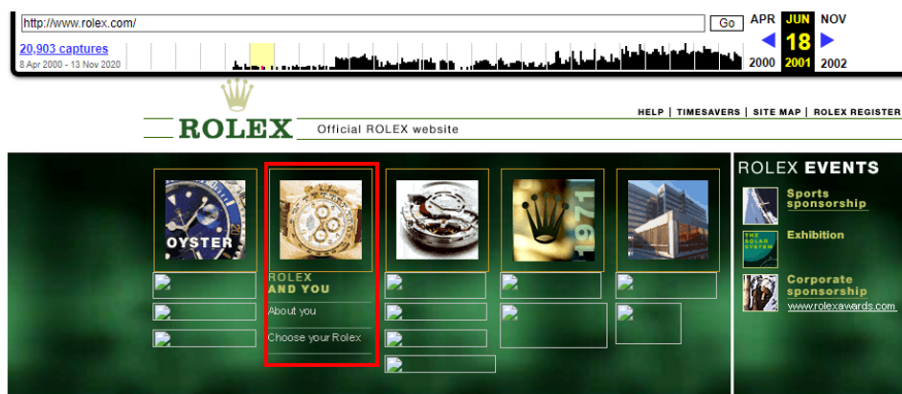
As the internet grew in the 1990s and early 2000s, there developed greater need for easy website navigation techniques. Collapsible drop-down menus, also sometimes referred to as a flyout menu or pull-down menu, were developed as early as 1986 such as the Macintosh computer operating system's graphical user interface. By early 2000s, such menus had become standard on numerous popular websites such as www.rolex.com and the Jane Goodall Institute's website. The benefits of collapsible menus contributed to the usability and popularity of these websites.

For example, the Jane Goodall Institute's website, www.janegoodall.org, included a collapsible drop-down menu that, when the user's cursor hovers over an item, a drop-down menu appears, showing subordinate items associated with the hovered-over item:



<https://web.archive.org/web/20020328104004/http://www.janegoodall.org/>, captured on Mar. 28, 2002 (showing that when the cursor hovers over “Jane Goodall” on the menu, the subordinate items under the “Jane Goodall” category display on the page).

Similarly, www.rolex.com also contains a collapsible drop-down menu. The frontpage contains five images as items of the navigation menu. When the cursor is hovered over one of the images, a drop-down menu displays (e.g., the “Rolex and You” drop-down menu):



<https://web.archive.org/web/20010618170704/http://www.rolex.com/>, captured on June 18, 2001.

In addition to collapsing drop-down menus, at the time of the alleged invention, other multi-level hierarchical menus such as site maps had also been widely used in websites. For example, yahoo.com provided a multi-level hierarchical site map that allowed the user to browse different categories (e.g., “Ars & Humanities”) and sub-categories (e.g., “Literature”) of information:



<https://web.archive.org/web/20000510085158/http://www.yahoo.com/>, captured on May 10, 2000.

So, too, with the use of so-called “breadcrumb” trails. As explained in Keith Instone article and presentation at the 3rd Annual Information Architecture Summit in March 2002, “[p]ath breadcrumbs, which are becoming more common with database-driven sites, show the particular path the user has taken within the site to the page.” See www.instone.org/breadcrumbs; <http://www.instone.org/files/KEI-Breadcrumbs-IAS.pdf> (“Location, Path & Attribute Breadcrumbs”). The article explains that “[t]he design intent of breadcrumbs is usually stated as twofold: to convey information to the user (about the site structure or the path they have taken),

and to also give users a way to select links from the breadcrumb (in order to go ‘up’ in the site hierarchy or to re-trace their steps).” *Id.* Moreover, as explained by the article, path breadcrumbs were dynamically generated:

Path breadcrumbs represent the original metaphor of the term and show the path the user has taken within the site to get to the current page. *The same content from the site can be presented with different breadcrumbs because users can take different routes. With database-driven sites where the page can be dynamic and based on user-state information, path breadcrumbs are becoming more common.* *Id.* (emphasis added). Mr. Instone provides several real-world examples of path breadcrumbs from epicurious.com and hot artists. *Id.* As illustrated in the slide below from Mr. Instone’s presentation, the breadcrumb is dynamically generated based on the path taken. *Id.*

Path Examples (1): 3 ways to Marvin Gaye



Conference attendees provided feedback on path breadcrumbs, stating, for example, that “Epicurious breadcrumbs were not confusing in a usability study we did.” *Id.* Mr. Instone advised that path breadcrumbs were especially well-suited for websites which provided more

than one path by which to navigate to a webpage. *Id.* Thus, it would have been obvious to a POSITA to use dynamically generated path breadcrumbs as taught in Location, Path & Attribute Breadcrumbs on websites that provided multiple ways to land on a particular page, including websites disclosed in the primary references of Exhibit A.

Similarly, the dynamic breadcrumb trail in epicurious.com is analyzed in English et al., “Examining the Usability of Web Site Search” (2002). English (2002) provides an example of breadcrumb trail in epicurious.com, “Browse > Pasta > Saute,” with child menu items underneath the breadcrumb trail that enables the user to refine the search and choose a sub-category such as “American” or “Greek”:



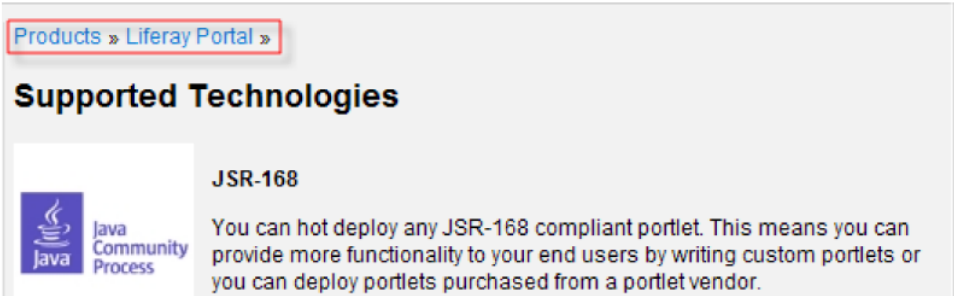
Figure 5: A view of the middlegame of the Epicurious Browse interface after another refinement operation.

English (2002) at Fig. 5.

Both the collapsible menu and the breadcrumb trail are also widely used in software designs. For example, Shum et al., “Liferay Portal 4 – Content Management System Guide,” published in 2000, shows both a collapsible (retractable) menu and a dynamic breadcrumb trail used in the Liferay Portal software system:

1. Breadcrumb Portlet

The Breadcrumb navigation portlet shows the location of the current page in context of the site. This form of navigation helps the user visualize the structure of the site and quickly move from a page that is very specific to a broader grouping of information.



Simply add the Breadcrumb portlet to each page you want it on. The portlet will determine its place in the structure of the website and dynamically build its proper path.

2. Navigation Portlet

The Navigation portlet is similar to the Breadcrumb portlet in that it helps the user visualize the structure of the site and provides hyperlinks to quickly move from page to page. The advantage of the Navigation portlet is that it displays more information about the current page.

- 1. To configure the Navigation portlet, click on the **Configuration** icon (⚙️).



Shum at 30. Thus, it would have been obvious to a POSITA to combine breadcrumb trails with collapsible drop-down menus, including websites disclosed in the primary references of Exhibit A.

Table 3: List of Additional Background References

Title or Pat. No. / Pub. No.	Author / Publisher or Inventor	Issue, Publication, or Filing Date
Wayback Machine Capture of https://web.archive.org/web/20010618170704/http://www.rolex.com/		Captured on June 18, 2001
Wayback Machine Capture of https://web.archive.org/web/20020328104004/http://www.janegoodall.org/		Captured on Mar. 28, 2002
“Location, Path & Attribute Breadcrumbs,” available at www.instone.org/breadcrumbs ; http://www.instone.org/files/KEI-Breadcrumbs-IAS.pdf	Instone	March 2002
“Examining the Usability of Web Site Search”	English et al.	2002
“Domino Tunneling Views: an IP.com Prior Art Database Technical Disclosure”		Nov. 3, 2001
“Liferay Portal 4 – Content Management System Guide”	Shum et al.	2000
Travelocity.com		Around 1996
“Effects of Contextual Navigation Aids on Browsing Diverse Web Systems”	Park et al.	April 2000
“A Comprehension-Based Model of Web Navigation and Its Application to Web Usability Analysis”	Kitajima et al.	Jan. 2000
“A Study of Three Browser History Mechanisms for Web Navigation”	Nadeem et al.	2001
“Inside Macintosh,” Vol. V	Apple Computer, Inc.	1986
“A Graphical Aid for Web Navigation”	Ren	Aug. 2000
U.S. Patent No. 7,770,102	Wolff et al.	June 6, 2000
European Patent Application No. 0 947 921 A2	Guerrero	Jun. 10, 1999
U.S. Patent No. 5,801,702	Dolan et al.	Sep. 1, 1998
U.S. Patent No. 6,236,400	Guerrero	May 22, 2001
U.S. Patent No. 6,240,410	Wical	May 29, 2001
U.S. Patent No. 6,256,028	Sanford et al.	Jul. 3, 2001
U.S. Patent No. 6,462,762	Ku et al.	Oct. 8, 2002
U.S. Patent No. 6,597,377	MacPhail	Jul. 22, 2003

Title or Pat. No. / Pub. No.	Author / Publisher or Inventor	Issue, Publication, or Filing Date
U.S. Patent No. 6,621,532	Mandt	Sep. 16, 2003
U.S. Patent No. 6,633,316	Maddalozzo, Jr. et al.	Oct. 14, 2003
U.S. Patent No. 6,832,350	Bates et al.	Dec. 14, 2004
U.S. Patent No. 6,990,638	Barksdale et al.	Jan. 24, 2006
U.S. Patent No. 8,438,487	Lin-Hendel	May 7, 2013
U.S. Patent No. 5,742,768	Gennaro	Apr. 21, 1998
U.S. Patent Application Publication No. 2004/0075693	Moyer et al.	Apr. 22, 2004
WO 01/16842	Clarke et al.	Mar. 8, 2001
RFC 1738 (RFC1738), Internet RFC/STD/FYI/BCP Archives		Dec. 1994
“Navigation Bars for Hierarchical Web Sites”	Bowler et al:	2001
“Quick Start to Using OpenStep Desktop”	Sun Microsystems Inc.	Sep. 1996
“Fully Navigatable Breadcrumb Trails”	International Business Machines	Sep. 2002
http://home.lu.lv/~mihails/ttl/P4_DynamicWeb/24-WebSiteNav/BreadCrumbs/(implementation of the code disclosed in Teague Book Jason Cranford Teague, DHTML and CSS for World Wide Web at 344 (2d ed.) published 2001 Chapter 24).		2001

Discovery is ongoing, and Defendants’ prior art investigation and third-party discovery is therefore not yet complete. Defendants reserve the right to present additional items of prior art under 35 U.S.C. § 102(a), (b), (e) and/or (g), and/or 35 U.S.C. § 103 located during the course of discovery or further investigation, as well as update its 35 U.S.C. § 102(f) assertions.

Defendants further reserve the right to assert invalidity under 35 U.S.C. § 102(c) or (d) to the extent that discovery or further investigation yield information forming the basis for such assertions.

C. Invalidity Based on 35 U.S.C. § 112

Defendants list below exemplary grounds upon which it contends that the Asserted Claims are invalid, under at least Plaintiffs' apparent construction of the claims in its Infringement Contentions, for failure to meet one or more requirements of 35 U.S.C. § 112. This is particularly the case with respect to the apparent overbroad constructions that Plaintiff is applying to the Asserted Claims, which go beyond (and are not adequately described or enabled by) the purported inventions disclosed in the Asserted Patents. To the extent the Asserted Claims may eventually be construed so broadly as to cover the accused products, such a construction would render the Asserted Claims invalid for failure to meet the requirements of 35 U.S.C. § 112. A more detailed discussion of Defendants' written description, enablement, and indefiniteness defenses will be set forth in Defendants' expert report(s) on invalidity and claim construction briefing.

Defendants' investigation concerning invalidity under 35 U.S.C. § 112 is ongoing. For example, the claim terms have not been construed, Plaintiff has not provided adequate infringement contentions, and discovery is ongoing. Thus, Defendants reserve the right to supplement and/or amend its invalidity contentions with respect to § 112. Such supplementation and/or amendments may include, but are not limited to, invalidity contentions based on indefiniteness, lack of written description, and/or lack of enablement should the claims be construed under 35 U.S.C. § 112(6).

1. Written Description / Enablement

Several Asserted Claims are invalid under 35 U.S.C. § 112(1) because they fail to provide an adequate written description of certain claim limitations such that one of ordinary skill in the art would recognize that the named inventor(s) had possession of those claim limitations and/or fails to enable one of ordinary skill in the art to practice the claimed invention without undue experimentation. These claims include at least the following, as well as all claims that depend from the particularly identified claims below:

Under Caddo's apparent interpretation of the claim term "pre-defined shortcuts" in its Infringement Contentions (*see, e.g.*, Infringement Contentions Ex. A at 7-8), claim 2 of the '411 patent is invalid because the specification lacks adequate written description support for the full scope of the claim and fails to enable the full scope of the claim. Claim 2 of the '301 patent, claim 2 of the '517 patent, claim 2 of the '306 patent, claim 2 of the '836 patent, claims 2 and 18 of the '880 patent, and claims 9 and 22 of the '127 patent contain similar language and are also invalid for substantially the same reasons.

The claim phrase "displaying the Active Path as an *alternative* to the graphical user menu system" (emphasis added) in claim 1 of the '411 patent and claim 1 of the '517 patent render those claims invalid because the specification lacks adequate written description support for the full scope of the claim and fails to enable the full scope of the claim.

Under Caddo's apparent interpretation of the claim term "wherein pre-selecting a given active link triggers the display of sibling menu items on the level associated with said given active link without disturbing the displayed Active Path" in its Infringement Contentions (*see, e.g.*, Infringement Contentions Ex. A at 6-7), claim 1 of the '411 patent is invalid because the

specification lacks adequate written description support for the full scope of the claim and fails to enable the full scope of the claim.

2. Indefiniteness

Several Asserted Claims are invalid under 35 U.S.C. § 112(2) because they fail to particularly point out and distinctly claim the subject matter which the named inventor(s) regard as the alleged invention. The claims, read in light of the specification and file history, “fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2124 (2014). The indefinite claims include at least those identified below and their respective dependent claims:

Claim 1 of the ’411 patent and claim 1 of the ’517 patent are invalid for lack of antecedent basis for the term “graphical user system,” and thus failing to inform, with reasonable certainty, those skilled in the art about the scope of the alleged invention.

Under Caddo’s apparent interpretation of the claim term “each said active link enabling the user to directly browse all items on any given level of the hierarchical information structure including all hierarchically subordinate items without affecting the Active Path” in its Infringement Contentions (*see, e.g.*, Infringement Contentions Ex. B at 5-6), claims 1 and 9 of the ’301 patent is invalid for failing to inform, with reasonable certainty, those skilled in the art about the scope of the alleged invention. Caddo’s interpretation excludes “including all hierarchically subordinate items,” and therefore disregards a distinct embodiment disclosed by the ’301 patent. *See id.* Claims 7 and 8 of the ’301 patent and claims 1 and 8 of the ’836 patent contain similar language and are also invalid for the same reason.

The claim phrase “wherein pre-selecting a given active link triggers the display of sibling menu items on the level *associated with* said given active link without disturbing the displayed

Active Path” (emphasis added) in claim 1 of the ’411 patent is invalid for failing to inform, with reasonable certainty, those skilled in the art about the scope of the alleged invention. Claim 1 of the ’517 patent, claim 10 of the ’880 patent, and claims 1 and 14 of the ’127 patent contain similar language and are also invalid for substantially the same reasons.

Under Caddo’s apparent interpretation of the claim term “one said active link corresponding to each of the items selected” in its Infringement Contentions (*see, e.g.*, Infringement Contentions Ex. A at 4-5), claim 1 of the ’411 patent is invalid for failing to inform, with reasonable certainty, those skilled in the art about the scope of the alleged invention. According to the disclosure of the Asserted Patents, an active link corresponds to a single selected item, not “each of the items selected” as the claim requires by its plain language. Even Caddo is confused by this claim limitation as it contends “[t]he ’411 Accused Instrumentalities’ active link corresponds to *each* of the items selected.” *Id.* (emphasis added). Claims 1 and 9 of the ’301 patent and claim 1 of the ’517 patent contain similar language and are also invalid for the same reason.

Similarly, under Caddo’s apparent interpretation of the claim term “with one said active link corresponding to each of the hierarchical levels accessed by the user” in its Infringement Contentions (*see, e.g.*, Infringement Contentions Ex. D at 3), claim 1 of the ’836 patent is invalid for failing to inform, with reasonable certainty, those skilled in the art about the scope of the alleged invention. According to the disclosure of the Asserted Patents, an active link corresponds to a single hierarchical level, not “each of the hierarchical levels accessed by the user” as the claim requires by its plain language. Even Caddo appears confused by this claim limitation as it contends that the Accused Instrumentalities have “one said active link corresponding to *each* of the hierarchical levels accessed by the user (*e.g.*, the ’836 Accused

Instrumentalities’ *active path* “Automotive—ADAS and Highly Automated Driving—Automotive Radar Systems.” *Id.* (emphasis added).

Under Caddo’s apparent interpretation of the claim term “selecting from the one or more items displayed by one of the active links on the active path” in its Infringement Contentions (*see, e.g.*, Infringement Contentions Ex. E at 5, 18), claims 1 and 10 of the ’880 patent is invalid for failing to inform, with reasonable certainty, those skilled in the art about the scope of the alleged invention. According to the disclosure of the ’880 patent, an active link corresponds to a previously selected item, therefore there cannot be “one or more items displayed by one of the active links.” Claims 1 and 14 of the ’127 patent contain similar language (“selecting the item from the one or more items displayed by one of the active links on the active path”) and are also invalid for the same reason.

Dated: June 11, 2021

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned certifies that on June 11, 2021, all counsel of record who are deemed to have consented to electronic service are being served with a copy of this document through the Court's CM/ECF system under Local Rule CV-5. Any other counsel of record will be served by a facsimile transmission or first-class mail.

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